

ATTACHMENT 51

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

)
SURGICAL INSTRUMENT SERVICE)
COMPANY, INC.,)
)
)
Plaintiff,) Case No. 3:21-cv-03496-VC
)
vs.)
)
INTUITIVE SURGICAL, INC.,)
)
)
)
Defendant.)
_____)

HIGHLY CONFIDENTIAL, ATTORNEYS' EYES ONLY DEPOSITION OF:
KURT HUMPHREY
WEDNESDAY, MARCH 15, 2023
10:25 A.M. (MST)

Reported by: GINA M. CLOUD
CSR No. 6315

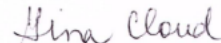
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<p>1 straightforward, and maybe I should say the</p> <p>2 programing of a CryptoRF chip should be</p> <p>3 straightforward. Maybe that should be expanded to</p> <p>4 programmable, not just reprogrammable.</p> <p>5 Q. Go ahead. 15:33:03</p> <p>6 A. I'm looking for another reference here. If</p> <p>7 you look at page 20 from my opening report.</p> <p>8 Q. What should I be looking at there?</p> <p>9 A. Paragraph 49, an excerpt from the e-mail --</p> <p>10 anyway the excerpt from the e-mail says: "The unique 15:34:42</p> <p>11 ID doesn't prevent reprocessors from putting lives</p> <p>12 back on our instruments. In principle, you could</p> <p>13 copy the blob of data off a new instrument, then put</p> <p>14 the same blob of data back on once it's expired, and</p> <p>15 it will be good as new. I believe the Dallas 15:35:02</p> <p>16 implementation uses 'write once' region in the tag to</p> <p>17 ensure the decremented lives stay decremented."</p> <p>18 So this is an excerpt from an Intuitive</p> <p>19 e-mail that basically alerts those in the design --</p> <p>20 in the engineering community of the potential to just 15:35:28</p> <p>21 again reprogram or program a same chip with the</p> <p>22 extracted image and make it appear like a new</p> <p>23 instrument.</p> <p>24 Q. Do you think that an internal Intuitive</p> <p>25 e-mail alerts the engineering community to something? 15:35:52</p> <p style="text-align: right;">Page 134</p>	<p>1 protections that the unique I.D. doesn't provide,</p> <p>2 correct?</p> <p>3 A. Assuming you can't rewrite over it, I</p> <p>4 believe that would be true.</p> <p>5 Q. I believe you said something earlier in one 15:37:36</p> <p>6 of your answers about programing the CryptoRF chip</p> <p>7 after the image has been extracted, right? Do you</p> <p>8 recall talking about programing of the RF chip being</p> <p>9 a simple process?</p> <p>10 A. Yes. 15:38:09</p> <p>11 Q. Is programing a software function?</p> <p>12 A. It's both a soft and hardware function.</p> <p>13 Q. Is programing something that you do, or does</p> <p>14 that fall under the category of you rely on someone</p> <p>15 else on your team to do the programing in reverse 15:38:31</p> <p>16 engineering processes?</p> <p>17 A. I probably rely on someone else to actually</p> <p>18 generate the file to be programmed, but certainly the</p> <p>19 hardware to program the chip, I can certainly operate</p> <p>20 that. 15:38:55</p> <p>21 Q. You can operate the hardware?</p> <p>22 A. The programmer for the chip, yes.</p> <p>23 Q. You would rely on someone else on your team</p> <p>24 to program the software, though?</p> <p>25 A. I don't understand your question. 15:39:16</p> <p style="text-align: right;">Page 136</p>
<p>1 MR. VAN HOVEN: Objection to form.</p> <p>2 THE WITNESS: I'm sorry. Can you repeat the</p> <p>3 question.</p> <p>4 BY MS. CAHOY:</p> <p>5 Q. I said you think an internal Intuitive 15:35:59</p> <p>6 e-mail alerts the engineering community to something?</p> <p>7 MR. VAN HOVEN: Objection to form.</p> <p>8 BY MS. CAHOY:</p> <p>9 Q. I'm just asking about what you said in your</p> <p>10 answer about basically this e-mail alerts those in 15:36:15</p> <p>11 the design and the engineering community.</p> <p>12 A. I believe that's who it was addressed to. I</p> <p>13 believe it's addressed to the design team.</p> <p>14 Q. The design team at Intuitive?</p> <p>15 A. Yes. 15:36:31</p> <p>16 Q. And this paragraph 49 says that the unique</p> <p>17 ID doesn't prevent reprocessors from putting lives</p> <p>18 back on the instruments, correct?</p> <p>19 A. Yes.</p> <p>20 Q. The last sentence says that "the Dallas 15:36:47</p> <p>21 implementation uses a 'write once' region in the tag</p> <p>22 in ensure decremented lives stay decremented"?</p> <p>23 A. Correct.</p> <p>24 Q. So putting the use counter in a</p> <p>25 decrement-only region of the chip provides additional 15:37:05</p> <p style="text-align: right;">Page 135</p>	<p>1 Q. When was the last time that you programmed a</p> <p>2 chip personally?</p> <p>3 A. Programmed a chip for, last word?</p> <p>4 Q. Personally.</p> <p>5 A. It's probably been five, six years ago. 15:39:44</p> <p>6 Q. You have someone else on your team that you</p> <p>7 look to to do the programing of chips?</p> <p>8 A. No, not necessarily. But this isn't</p> <p>9 something that we do on a regular basis. We don't</p> <p>10 program nonvolatile memories on a regular basis. 15:40:22</p> <p>11 That's probably an unusual thing for us to do.</p> <p>12 Q. Who is the "we" in that response? Who are</p> <p>13 you referring to when you say "we"?</p> <p>14 A. Me and my subject matter experts. My team</p> <p>15 of experts that I rely on for certain aspects of the 15:40:47</p> <p>16 reverse engineering work that we do at IP Enginuity.</p> <p>17 Q. If you turn to page 21 of your report.</p> <p>18 A. Which report?</p> <p>19 Q. The same one we're on, the Rebotix Report.</p> <p>20 A. Okay. 15:41:42</p> <p>21 Q. Do you see the italicized heading in the</p> <p>22 middle of the page with the small Roman numeral iv</p> <p>23 before it?</p> <p>24 A. Yes.</p> <p>25 Q. Could you read that, please. 15:41:56</p> <p style="text-align: right;">Page 137</p>

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<p>1 A. "Several additional factors make the process 2 of Rebotix's image analysis for the Xi EndoWrist 3 CryptoRF chip easier than others that I've 4 encountered in my career." 5 Q. What's an example of a chip you were 15:42:33 6 referencing as one of the others you have encountered 7 in your career? 8 A. We've encountered chips that were physically 9 rendered very difficult to physically analyze because 10 of protective materials that had been applied to the 15:43:13 11 chips so that deprocessing the chip was extremely 12 difficult, without destroying the chip, without 13 destroying the information you were looking at. That 14 would be one example. 15 Q. Are there any other examples that you've 15:43:37 16 encountered in your career that you think would be 17 more difficult? 18 A. It kind of goes along with what I'm 19 mentioning in paragraph 71, 70 and 71 just below. 20 The fact that third parties like Rebotix have 15:43:57 21 familiarity with the embedded software and the data 22 in the memories of the EndoWrists of the S/Si 23 EndoWrists certainly gives them a leg up on analyzing 24 the images extracted from the X/Xi because they're 25 generally similarities within the same company or 15:44:32 Page 138</p>	<p>1 I've not seen any of their work or had any 2 communication with them. I don't know who they are. 3 Q. You've never spoken with SIS's damages 4 expert? 5 A. No. 15:47:19 6 Q. Have you heard of a hospital called Larkin 7 Community Hospital? 8 A. I have not. 9 Q. What about a hospital called Valley Medical 10 Center? 15:47:53 11 A. No, I'm not familiar with it. 12 Q. What about Franciscan Hospitals in the 13 Illinois and Indiana area? 14 A. No, I'm not familiar with them. 15 Q. Have you ever spoken with anyone from any of 15:48:08 16 those hospitals? 17 A. No. 18 Q. Have you ever spoken with Counsel for those 19 hospitals at firms such as Boni & Zach (phonetic), 20 Cohen Milstein or SRK Attorneys? 15:48:24 21 A. No. 22 Q. So as far as you're aware, you've never 23 spoken with either the hospitals or their counsel 24 that are suing Intuitive? 25 A. That's correct. 15:48:55 Page 140</p>
<p>1 same product line, lines of codes are used and 2 reused. 3 It's unusual for software to be totally new, 4 so there is an advantage that they will have in 5 analyzing these images since they've already done it 15:44:56 6 once for the earlier generation tools. 7 Q. So that's what you're referencing in 8 paragraph 76 when you say: "The similarity between 9 the data extracted from the Xi EndoWrist and prior 10 data analyzed by Rebotix on the S/Si EndoWrist makes 15:45:15 11 image analysis a straightforward process"? 12 MR. VAN HOVEN: Objection to form. 13 THE WITNESS: Yes. And familiarity with the 14 software in question is certainly an advantage. It's 15 generally quite helpful. I've had that experience. 15:45:43 16 BY MS. CAHOY: 17 Q. It makes it more straightforward to -- 18 A. Yes. Often that's true. 19 Q. But also you said here it would make it more 20 straightforward for Rebotix, right? 15:45:58 21 A. Yes, it should. 22 Q. Are you aware that SIS has a damages expert 23 in this case who has submitted a few reports? 24 A. I may have, again, anecdotally heard that 25 there were damage experts that were involved, but 15:46:59 Page 139</p>	<p>1 Q. Who wrote your Rebotix Report? 2 A. I wrote it. 3 Q. Did you receive input on that report from 4 Rebotix's counsel? 5 A. There was certainly some internal review and 15:49:28 6 some feedback on it. 7 MS. CAHOY: If we could take another break 8 now, I think I'm close to done. I just want to look 9 back through and see if I have any questions left. 10 THE WITNESS: Sounds good. 15:50:24 11 MR. VAN HOVEN: Let's go off the record. 12 THE VIDEOGRAPHER: We are off the record. 13 The time is 4:50 p.m. 14 (Recess taken.) 15 THE VIDEOGRAPHER: We are back on the 16:09:20 16 record. The time is 5:09 p.m. 17 BY MS. CAHOY: 18 Q. Mr. Humphrey, have any of your expert 19 opinions been excluded before? 20 A. No. 16:09:53 21 Q. Have you ever talked to someone identified 22 to you as an expert in this case by the name of 23 Philip Phillips? 24 A. No, not that I can recall. 25 Q. Have you ever talked to someone identified 16:10:14 Page 141</p>

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<p>1 to you as an expert in this case by the name of Jean</p> <p>2 Sargeant?</p> <p>3 A. No.</p> <p>4 Q. Have you ever talked to someone identified</p> <p>5 to you as an expert in this case by the name of 16:10:28</p> <p>6 Amandeep Mahal?</p> <p>7 A. No.</p> <p>8 Q. Have you ever talked to someone identified</p> <p>9 to you as an expert in this case by the name of</p> <p>10 Russell Lamb? 16:10:42</p> <p>11 A. No.</p> <p>12 Q. Have you ever talked to someone identified</p> <p>13 to you as an expert in this case by the name of</p> <p>14 Richard Bero?</p> <p>15 A. No. 16:10:52</p> <p>16 Q. Have you ever talked to someone identified</p> <p>17 to you as an expert in this case by the name of Kim</p> <p>18 Parnell?</p> <p>19 A. No.</p> <p>20 Q. Have you ever talked to someone identified 16:11:02</p> <p>21 to you as an expert by the name of Einer Elhauge?</p> <p>22 A. No.</p> <p>23 MS. CAHOY: That's all the questions I have</p> <p>24 today. I appreciate your time, Mr. Humphrey.</p> <p>25 I would ask that we designate the transcript 16:11:20</p> <p style="text-align: right;">Page 142</p>	<p>1 DECLARATION</p> <p>2</p> <p>3</p> <p>4 I hereby declare I am the deponent in the within</p> <p>5 matter; that I have read the foregoing deposition and</p> <p>6 know the contents thereof, and I declare that the</p> <p>7 same is true of my knowledge except as to the matters</p> <p>8 which are therein stated upon my information or</p> <p>9 belief, and as to those matters, I believe it to be</p> <p>10 true.</p> <p>11 I declare under the penalties of perjury of the</p> <p>12 state of California that the foregoing is true and</p> <p>13 correct.</p> <p>14 executed on the ____ day of _____</p> <p>15 2023, at _____, California.</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20 _____</p> <p style="text-align: center;">WITNESS</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p> <p style="text-align: right;">Page 144</p>
<p>1 highly confidential, attorneys' eyes only until we</p> <p>2 have a chance to review it under the provision of the</p> <p>3 protective order.</p> <p>4 MR. VAN HOVEN: No questions from</p> <p>5 Plaintiff's counsel. 16:11:33</p> <p>6 THE REPORTER: Kate, do you need this</p> <p>7 expedited or normal delivery?</p> <p>8 MS. CAHOY: I'll take a rough and expedited,</p> <p>9 please.</p> <p>10 THE REPORTER: When would you like it? 16:11:58</p> <p>11 MS. CAHOY: Can you get it by Monday?</p> <p>12 THE REPORTER: Sure.</p> <p>13 MR. VAN HOVEN: Just a copy, normal time.</p> <p>14 THE VIDEOGRAPHER: We are off the record.</p> <p>15 The time is 5:12 p.m. on March 15, 2023. 16:12:26</p> <p>16 This concludes today's testimony given by</p> <p>17 Mr. Kurt Humphrey. The total number of media units</p> <p>18 used was seven, and will be retained by Veritext</p> <p>19 Legal Solutions.</p> <p>20 (The deposition was concluded at 4:12 p.m.) 16:12:54</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p> <p style="text-align: right;">Page 143</p>	<p>1 I, GINA M. CLOUD, a certified shorthand</p> <p>2 reporter for the State of California, do hereby</p> <p>3 certify:</p> <p>4 that prior to being examined, the witness named in</p> <p>5 the foregoing deposition, was by me duly sworn to</p> <p>6 testify the truth, the whole truth, and nothing but</p> <p>7 the truth pursuant to Section No. 2093 of the Code of</p> <p>8 Civil Procedure;</p> <p>9 That said deposition was taken before me pursuant</p> <p>10 to notice, at the time and place therein set forth,</p> <p>11 and was taken down by me in shorthand and thereafter</p> <p>12 reduced to typewriting via computer-aided</p> <p>13 transcription under my direction;</p> <p>14 I further certify that I am neither counsel for,</p> <p>15 nor related to, any party to said action, nor in</p> <p>16 anywise interested in the outcome thereof.</p> <p>17 IN WITNESS WHEREOF, I have hereunto subscribed my</p> <p>18 name this 20th day of March, 2023.</p> <p>19</p> <p>20</p> <p>21 </p> <p>22 GINA M. CLOUD</p> <p>23 CSR No. 6315</p> <p>24</p> <p>25</p> <p style="text-align: right;">Page 145</p>